

**PRELIMINARY AMENDMENT**

**Serial No. N/A**

**Inventor: Koch et al.**

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**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listing, of claims in the application:

**Listing of Claims:**

1. (currently amended) **Device** A device for white light interferometry comprising a light source of main emission wavelength  $\lambda_0$  and spectral width  $\Delta\lambda$  and an evaluating unit with a line sensor of pixel width  $P$  for detecting an interference fringe pattern with a fringe spacing  $F$ , a mask being placed in front of the line sensor having a periodically modulated light transmittance along said line sensor, characterized in that wherein the period length  $M$  of the mask is such as to fulfill fulfill the condition

$$\frac{\Delta\lambda}{\lambda_0} < \left| 1 - \frac{F}{M} \right| < \frac{1}{2} \frac{F}{P} - \frac{\Delta\lambda}{\lambda_0}$$

2. (currently amended) **Device** The device according to claim 1, characterized in that wherein the period length  $M$  is an integral fraction of the pixel width  $P$ .

3. (currently amended) **Device** The device according to one of the preceding claims, characterized in that claim 1, wherein the mask is formed by covering the line sensor pixel with a plurality of opaque points, particularly defined by metallic dots.

4. (currently amended) **Device** The device according to claim 3, characterized in that wherein the opaque points are statistically distributed perpendicular to an axis of the line sensor axis and the a covering density along the axis is in accordance with a periodic function, particularly selected from the group consisting of a sine, rectangular or and sawtooth function.

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5. (currently amended) Device The device according to claim 3, characterized in that wherein the opaque points are applied in a regular arrangement which is periodically repeated along the line sensor.

6. (currently amended) Device The device according to ~~one of the claims 1 or 2,~~ characterized in that claim 1, wherein the line sensor comprises at least two pixel lines and the mask is constructed as an alternate arrangement of transparent and light-deflecting elements, the wherein deflected light ~~being~~ is detected by the second pixel line.

7. (currently amended) Device The device according to claim 6, characterized in that wherein light deflection takes place by refraction.

8. (currently amended) Device The device according to claim 6, characterized in that wherein light deflection takes place by diffraction on gratings.